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ORIGINAL LECTURES.

PLEURISY,

With Large Hemorrhagic Effusion.

A Clinical Lecture delivered at the Philadelphia Hospital.

BY FREDERICK P. HENRY, M.D.,
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN: The serous membranes are the tissues of which the study has given us almost all the exact knowledge we possess concerning the process of inflammation. The exudation of plasma, the deposit of fibrin, and, most important of all, the migration of leucocytes, have all been studied in serous membranes, and, therefore, when one of them is inflamed, it might be supposed that we would have an accurate mental picture of the process that is going on, and be able to predict the precise period and mode of its termination. Such, however, is by no means the case. We may know, for example, that the pleura is inflamed; that fibrin is forming on its surface; that serum is exuding, and leucocytes migrating into its cavity, but we cannot foresee at the beginning of the attack whether the fluid products of inflammation will be so small in proportion to the solid that the pleurisy may fairly be called dry or fibrinous, or whether they will be poured out in large amount. With all our intimate knowledge of what may be called the physiology of inflammation, we are obliged to study each case separately, using all the means at our command to determine, first, whether inflammation is, or has been, present, and, secondly, what are the situation, the nature, and the amount of its products. I propose to make such a study of the patient before you; but before doing so, will make some remarks upon the diagnosis of pleurisy, with large effusion, as I believe that thereby your appreciation of the case, which is a most typical one of its kind, will be somewhat enhanced.

The presence of pleurisy, with large effusion, may be suspected, but its diagnosis cannot be made by mere inspection. On baring the chest the dimensions of one lateral half may be seen to be greater than those of the other, and its intercostal spaces distinctly widened. In addition, the respiratory movements of the same side may be diminished or entirely suppressed, and the heart's impulse detected in an abnormal situation, and yet, notwithstanding the concurrence of signs, each one of which is more or less diagnostic, no competent physician would think of trusting solely to them, but would proceed to the next step, which is *palpation*. By this means the chest walls which were seen, may now be felt to be more or less motionless on one side, and by placing a hand on each lateral region of the chest and directing the patient to take a deep breath, the contrast between the diminished or absent movement of the affected and the free, perhaps

exaggerated movement of the sound side, becomes very marked. By palpation also, the absence of vocal fremitus on the side of the effusion is ascertained.

Auscultation.—The next step in the examination is auscultation, and although the signs which it furnishes are, for the most part, negative, they are none the less valuable on that account, for what single fact can be more significant than the absence of breath sounds and vocal resonance over a greater portion, perhaps the whole, of the affected side? And here also the contrast with the sound side, on which the breathing may be puerile, and the vocal resonance increased, is very striking. These remarks apply to cases of large effusion. In slighter degrees, in which the layer of fluid between the lung and the chest wall does not, perhaps, exceed two inches, the breathing and voice, although distant, may be distinctly bronchial. This bronchial character of the voice and respiration is due to the compression of the lung, and disappears as the effusion increases, simply because the resistance becomes too great for the sound waves to overcome. In a case of pleurisy in this hospital last month, in which I removed twenty-two ounces of serous fluid by aspiration, I have entered in my notes that the dulness behind extended upward to the middle of the scapula, and that over the same area the breath sounds were inaudible, while the voice was distant and bronchial. In that case, as you perceive, the effusion, although moderate, was sufficient to extinguish the breath sounds, but not those dependent upon the voice. Do not forget that bronchial breathing and bronchophony are signs which are not limited to pneumonia, but are often the accompaniments of a moderate pleural effusion.

The heart sounds may be very faint or inaudible in their normal situation, while they are distinctly heard in some other spot. In right-sided effusion they may be heard most distinctly in the axillary region, and when the effusion is in the left pleural sac they may be loudest at some point to the right of the median line.

Although the impulse of the heart has been already referred to under the head of inspection, it is so intimately associated with the sounds that it is more natural to speak of it here. It may be most distinct to the left of the left nipple, or may actually be pushed over to the right mammary line. The impulse felt when the heart is pushed far to the right, is not caused by the apex of the heart, but by some portion of its right cavities, auricle or ventricle. Again, the heart's impulse may be imperceptible over any portion of the thorax. This may be due to the fact that it impinges against the posterior surface of the sternum, in which case auscultation will reveal the site of the displaced organ. Finally, in left-sided effusion, the pericardium may have become adherent to the lung, and, as the effusion increases, both heart and lung are carried backward together so that neither cardiac sound nor impulse can be detected. I have never seen an instance of this anomaly, but its possibility should be borne in mind.

Percussion.—I am accustomed to depend more upon percussion than on any other single means employed in the diagnosis of pleurisy with large effusion, I might say than on all other means combined. The information thereby obtained derives its value not only from the alterations of the normal sounds in various regions of the chest, but also from the sense of resistance felt by the percussed finger. This affords a striking instance of the great superiority of the fingers over any instrument employed to facilitate percussion. The sense of touch is, in my opinion, as much concerned in obtaining the best results from percussion as that of hearing.

The dulness, or rather flatness, on percussion, may not only occupy the whole area of the thorax in which, in health, the pulmonary resonance is obtained, but may even extend beyond it, and this fact constitutes one of the most important diagnostic signs of pleurisy with large effusion. On the right side the weight of the fluid may press the liver downward until its lower border is felt on a level with the umbilicus. On the left side anteriorly, there normally exists an area of tympanic resonance caused by the splenic end of the stomach. It has the shape of a half moon with its convexity upward, and is known as the semilunar space of Traube, who first called attention to its diagnostic importance. In left-sided pleurisy with large effusion, the semilunar space of Traube is abolished, and its place occupied by dulness.

A remarkable exception to the universal dulness, in large pleural effusion, is found at the apex anteriorly, where there is often a well-marked, low-pitched, tympanitic resonance, or, sometimes, even a cracked-pot sound. The explanation of this phenomenon has called forth a great deal of discussion which could not be entered upon without a preliminary consideration of the theories in vogue concerning the production of the normal sounds. This is altogether foreign to our present purpose, and, therefore, I merely repeat that, in large pleural effusion, there may be dulness not only over the entire area normally occupied by lung, but even extending beyond it, with, at the same time, tympanitic resonance in the infra-clavicular region. In the highest degrees of effusion, even this tympany is absent and the dulness becomes universal.

Let us now endeavor to apply these general facts to the particular case before us.

On inspection, it cannot be said that either half of the chest is larger than the other, but, on looking for the cardiac impulse, it is not seen in its normal position. This is not an unusual circumstance, even in health, when the subject is in the recumbent position; but, on continuing the search, the heart's impulse is plainly seen in the second intercostal space on the right side, barely within the right mammary line. This extraordinary displacement of the impulse may be perceived by those seated nearest the patient.

On placing the hands on each side of the chest and directing the patient to take a deep breath, the respiratory movement of the right side is found to be much greater than that of the left. On auscultation, the breath sounds are inaudible both in front and behind, but the voice, very faint and distant, may be heard over the back of the chest. On the right side, both the respiratory murmur and the vocal resonance are exaggerated. The heart sounds are faintly heard in their normal situation, but loudest in the second right intercostal space, where the

impulse is most distinct. On percussion, the dulness is found to be universal, including the semilunar space of Traube and the infra-clavicular region. A few days ago, I obtained a well-marked cracked-pot sound in the left infra-clavicular region, and its disappearance in the interval shows that the effusion has been steadily increasing. The case is undoubtedly one of large pleural effusion of the left side.

The want of distention of the left lateral half of the thorax may be correlated with the remarkable displacement of the heart. On measuring the two sides of the chest I found that the left side was only half an inch larger than the right, and this is due to the unyielding character of the thorax, which, in its turn, is dependent upon the man's age, which is sixty-two. The pressure of the fluid has told with greatest effect upon the mediastinum, which, in yielding, has carried the heart with it.

The case is such a typical one, every symptom being present in such bold relief, that it cannot be mistaken for any other condition. Aneurism is out of the question, there being neither thrill, murmur, pain, dyspnoea, nor dysphagia. The dulness due to a tumor would neither be so extensive nor so regular in outline, and vocal resonance and fremitus would probably be obtained at one or more parts of the chest-wall. The most common error with reference to accumulations of fluid within the thorax is that of mistaking a large pericardial for a pleural effusion. Dr. Fagge states that all the cases of large pericardial effusion admitted to Guy's Hospital were mistaken for pleurisy. The distinct character of the impulse of the heart and its displacement forbid the possibility of such mistake in this case.

I have said that there are cases of large pleural effusion, in which, on account of adhesions between pericardium and lung, neither cardiac sound nor impulse can be detected. I have made this statement on the authority of others, without having seen satisfactory evidence of its truth. Should I meet with a case of fluid accumulation on the left side of the chest without being able to detect the heart-sounds or impulse on either side, I would regard the effusion as pericardial.

Treatment.—Valuable time will be lost by perseverance in an exclusively medical treatment of this case, and, therefore, I propose to remove some of this fluid with the aspirator. I have already withdrawn, by means of a hypodermatic syringe, the fluid in this test-tube, which has, as you see, the appearance of pure blood. That it is not pure blood is proved, first, by the fact, that although it has been in this tube since yesterday afternoon, it has not coagulated; and, secondly, by examination with the instrument I show you, which is Gowers's hæmoglobi-nometer. By means of this instrument I had no difficulty in determining that the amount of blood in this effusion was less than one per cent. In other words, if I remove fifty ounces from this pleural cavity the amount of blood which it will contain will be less than half an ounce. This fact is one of decided importance, for often, after tapping, the fluid reaccumulates with great rapidity. In the case before us we may now feel confident that if the fluid removed be replaced by a new effusion of the same composition, the amount of blood thereby withdrawn from the vessels will be too small to injure materially the already feeble patient.

As to the point of puncture in aspirating a pleural effusion I prefer the seventh intercostal space, just ante-

rior to the border of the latissimus dorsi. On account of this patient's age, and the unyielding character of his thorax, I will remove but a portion of the effusion, stopping the aspirator on the first symptoms of cough or epigastric distress. The largest amount of fluid that I have removed at one operation was 127 ounces. The effusion was serous, and had occupied the right pleural cavity for six months. The patient was a young and previously strong Irishman, an inmate of the Episcopal Hospital, where the operation was performed on May 7, 1886. Notwithstanding the great accumulation of fluid, the patient did not complain of dyspnoea while in bed, and *could lie on either side*. In that case the improvement was rapid and continuous. In a week the man was out of bed, and, a few days later, left the hospital, believing himself to be well. I could have removed still more fluid, but desisted when the patient began to cough slightly, and complained of a painful sensation in the epigastrium.

A few words with reference to the character of the effusion in this case. It has been stated that a hemorrhagic effusion into the pleura is invariably indicative of the fact that the inflammation giving rise to it is of a tubercular nature. To those who hold that all pleurisy are tubercular, such a statement is, of course, a truism. Taken in the sense that a tubercular pleurisy necessarily gives rise to a hemorrhagic effusion, it is absolutely incorrect. That the inflammation of the pleura giving rise to large effusion, whether serous, purulent, or hemorrhagic, is usually tubercular, is a generally accepted fact. Kelsch and Vaillard (*Arch. de Phys. Norm. et Path.*, 1886) give reports of the minute examinations of sixteen cases of pleurisy, in all of which tubercles were found, and they state that in all the autopsies of pleurisy that they had made for three years, tubercle was present. Exception may be taken to their report on the ground that, although the anatomical appearances were those of tubercle, nothing is said with reference to the presence or absence of the bacillus.

As Fraentzel remarks: When we consider the delicate structure of the newly formed vessels, and their great abundance, in the pleuritic pseudo-membrane, as well as the frequency with which hemorrhagic spots are seen on its surface, the wonder is that every effusion is not hemorrhagic.

The presence of numerous maculæ on the surface of this man's body, one of which, in the groin, is as large as a silver dollar, leads me to the belief that purpura is the cause of the bloody effusion in this case. Hemorrhagic pleural effusion, in general, is dependent rather upon a constitutional condition, such as scorbutus or purpura, than on any local peculiarity of the inflammatory process.

NOTE.—When twenty-eight ounces of hemorrhagic fluid had been removed, the patient coughed slightly, and became somewhat uneasy and restless. The aspiration was, therefore, stopped.

It is ten days since the operation was performed, and, in the interval, there has been a steady improvement in both symptoms and signs. The heart has receded somewhat toward its normal position, and there is normal resonance at the left apex where, also, puerile vesicular murmur may be heard. There has been also a marked improvement in the appetite and digestion of the patient.

ORIGINAL ARTICLES.

SOME POINTS IN TREATMENT AT THE MEMORIAL HOSPITAL, ORANGE, N. J.

BY JOHN H. BRADSHAW, M.D.,
HOUSE PHYSICIAN.

THE following notes are merely brief records of some of the more recent cases and methods of treatment at this institution.

Bisulphite of soda solution is mainly depended upon for the treatment of erysipelas. The usual fifty per cent. solution of the shops is diluted with water three times, and is used locally under oiled silk, continuously until all redness of the skin has disappeared.

Cellulitis of the hand has met with a steady check by the continuous, cold, permanganate of potash drip, half a grain to a pint of water.

Fistula in ano has here (after the method inaugurated by Dr. Pierson, in 1876) received a most radical, sharp spoon treatment. All sinuses are laid open, and their diseased walls are dissected or scraped away. The wound is then united, under strict antiseptis, with sutures. Several extensive multiple fistulæ are recorded as healed by first intention.

Heaton's operation for hernia has not been successful at this hospital; four cases are recorded.

Nerve stretching for sciatica has met with uniform success. Out of seven cases recalled, six were permanent cures, after having been for years treated in vain by almost every conceivable method. The seventh case was discharged improved.

The diachylon ointment of Hebra has proved the best all-around ointment for squamous eczema. It should be made with *olive oil*.

Only selected cases of hemorrhoids are injected. The clamp, scissors and cautery have given best results.

Burns, if extensive, after first being dressed with some protective oil or powder combined with bicarbonate of soda, are, upon the removal of sloughs, actually peppered with skin grafts. The compound resin ointment, with carbolic acid, then serves as a mildly stimulating dressing.

The use of dry powdered boric acid packing for cervical endometritis, erosions and ulcers of the cervix uteri has done away with the glycerine tampons.

Fractures are treated with Levis's splints, or Buck's extension, or plastic or silicate of soda immovable splints, as indicated. If of the jaw, the hospital dentists mould a rubber interdental splint. There is an intentional scarcity of fracture apparatus.

Morbus coxarius, if in the first stage, receives a light plaster, or glass spica, high shoe, and crutch. If the child is too young to use crutches, it is kept as much as possible running about in a Darrach

wheel crutch (see *Orthopedic Surgery*, Sayre, 2d ed., p. 466). The suppurative stage receives operative treatment, and rest in cuirass (opus cit., p. 302). Spinal caries is treated by the support of a Sayre plaster jacket and wheel crutch.

Ulcers of the leg, of whatever variety, are usually first poulticed, if sloughy, and, when clean, a dry powder dressing of bismuth, boric acid (impalpably powdered) or calomel is used under bandage from the toes up, with elevation of the affected extremity. Should granulations be protuberant, they are strapped with the ordinary basket strapping of surgeon's plaster.

A recent case of laparotomy for cystic degeneration of both ovaries was delivered, six weeks before the operation, of a healthy child. Only after her confinement, when her abdomen remained over forty-four inches in girth, was she suspected of having an ovarian tumor. A noteworthy peculiarity about this case was that the umbilicus was protuberant, as is seen in ascites. A double ovariectomy was made, and the patient walked about her room on the fourteenth day.

For all operations which are likely to expose and chill the lower extremities, the legs and thighs are wrapped in cotton batting, and loosely bandaged by the nurse, before the patient is brought to the operating-room.

Hick's vaginal speculum has been found to be all that it claims; it is absolutely self-retaining, and gives a wider field for operations upon the cervix uteri than others.

For the last five years Billroth's anæsthetic mixture (introduced here by Dr. Simpson: ether, three pints; alcohol and chloroform, each one pint) has been employed for operations. It is thought to be followed by less nausea than is ether, and is decidedly more agreeable to the patient. The average time of anæsthesia is eight minutes.

In our lying-in department we recently had a case of empyema in a woman in her ninth month of gestation. The right pleural cavity was aspirated of a little over a quart of pus at each tapping three times successively during the five weeks preceding labor; the last aspiration was made two days before her confinement. She was delivered under careful antiseptic midwifery, and recovered from her labor with no untoward symptoms, although her right pleural cavity was again full of pus on the tenth day. She refused permission to make free drainage openings, and, after another aspiration, she carried her child away to her own home, where she was lost to observation.

Pleuritic accumulations of serum are almost invariably removed by aspiration; but when not, active counter-irritation and diuretic treatment are practised.

More care is bestowed to make operations aseptic

than ever before. Great cleanliness, free use of antiseptic solutions, sterilized instruments, silk, catgut, and wire; the use of boric acid, iodoform, free drainage, sublimated gauze, and indefatigable care and supervision on the part of the head nurse, have made a revolution here as elsewhere. The Lister spray is only used to wash the air of the operating-room before operation. There was recently an abortive attempt to revive the use of the Lister protective. The Mackintosh is still sometimes used when indicated to keep the dressing from becoming too dry.

At this hospital stimulants are given only when indicated, there being no record of their routine use.

Typhoid fever is treated expectantly. In hyperpyrexia antifebrin in four-grain doses has proved more efficient and safer than antipyrine.

Pneumonia is treated with the so-called pneumonia-jacket (cotton batting under oiled silk), and occasionally poultices are employed. No medicine is given unless demanded by alarming symptoms.

Those of our consumptives that survived the Bergeon treatment find great relief and sometimes actual benefit from the compound cannabis Indica mixture, introduced here by Dr. J. W. Stickler. Its formula is as follows:

R.—Tr. cannab. Ind.	℥ss.
Vironicæ (blue verbena) . . .	gr. viijss.
Ext. buchu fl.	℥j.
Pulv. verbas. thap. (mullein) .	gr. xv.
Sacch. alb.	℥j.
Spts. vin. rect.	℥jss.
Mel. despumat.	℥ij.
Spts. chloroformi	℥ij.—M.

A tablespoonful of this on going to bed acts as a sedative and anodyne, and is followed by quiet sleep. The dose one drachm to one-half an ounce is given during the day, p. r. n., for cough. There are three standard cough mixtures: 1. Expectorant (mur. of amm., as its base). 2. Sedative (hydrobromic acid and chloroform with syrup). 3. Expectorant and tonic (mur. ammon. and digitalis its principal ingredients). We have found a mixture of quinine and alcohol, twenty grains to one pint, of much service as a bathing lotion for night sweats. When this fails we give the "ward sweat mixture," which contains to each dose atropine one-one hundred and twentieth of a grain, morphine one-sixteenth of a grain, acid sulphuric dilute ten minims.

Acute articular rheumatism is treated to best success at first with full doses of salicylate of soda at frequent intervals, followed in convalescence by iodide of potash and ferruginous tonics. Chronic rheumatism of a gouty history receives iodide of potash or the old Alonzo Clark mixture:

R.—Vin. colch. sem.,	
Sod. et potass. tart.,	
Aquæ	aa partes æquales.—M.
Sig.—one drachm t. i. d.	

The histories of our patients are recorded as follows: We have an initial history sheet, and the usual Memorial Hospital Training School daily ward charts. The former contains blank spaces to be filled in on the first day of the patient's arrival by the assistant house physician, under the following printed headings: personal history, hereditary history, "special" (being a record of a woman's uterine history), past illness, past treatment, invasion of present illness, condition on admission, symptoms, physical signs, urine.

This sheet is kept not in the doctor's room or office of the hospital, but must be in the ward as long as the patient remains there. Thus, although there is no resident physician, and the house physician may not be present, the attending physician can review the "initial history" of the patient readily and by the bedside whenever he wishes to call for this sheet. All operative measures are recorded as soon as performed on the reverse side of the same paper. When the patient is discharged a brief *résumé* of the case, the condition of the patient on discharge, and the date of the same is written on the reverse side of this same initial history by the house physician with his signature. These sheets are now filed away in numerical order in covers containing lots of one month each. Twelve of these lots, from January to January, are deposited in one drawer of a little cabinet, made for this purpose, and the date belonging to them is painted on the outside. This arrangement is at once convenient and labor saving, and places the histories where they can readily be found. To find a record under this plan the name or the disease only of the case being in mind, the patient's register is first consulted and the number of the case noted, as well as the date of the patient's arrival. Knowing these facts it is a process of a very few moments to find the desired records.

ON THE MICROORGANISMS OF WATER.

BY CHARLES SMART, M.D.,
MAJOR AND SURGEON, U. S. ARMY.

LESS than a decade ago the title of this paper would have awakened in the mind of an appreciative observer a line of thought wholly different from that which it conjures up at the present day. The great world "spins forever down the ringing grooves of change;" and, perhaps, in nothing is this so evident as in the manner in which we have ceased to view the little world that lives and moves and has its being in the minute drop of water-sediment that we used to, but do not now, place on the microscope stand and study for hours for the light it shed on the possible quality of an unknown water. These microorganisms are there now, as they were then, although the pathways of inquiry lead no more to

their open, animated fields, but reach past them into the dim obscurities of those microscopic nebulae, the germs of the infinitesimal.

We were acquainted with bacteria in those days, but their presence was associated merely with the destruction of the organic debris of the microscopic field; and only when they formed a characteristic rather than an accident of that field did they become of importance as suggesting a putrefactive tendency in the water under examination. Many of these minute forms of life, formerly studied by sanitary inquirers, were of favorable rather than unfavorable augury, as they were met with in waters which experience showed to be wholesome. Among them were the symmetrical desmids and diatoms, the filamentous oscillatoriae and nostocs with their transverse markings and constrictions, and the confervoid genera, the endochrome of which becomes converted into motile zoospores, as in *zygnema*, *spirogyra*, *zygogonium*, *conferva*, *oedogonium*, and *chætophora*. The nostocs, however, when in great profusion were, from the experience of the Boston and many other ponds, occasionally suggestive of pig-pen and other unpleasant odors and tastes. The lively motion of the tentacled infusoria, and of the ciliated acomia, *alyscum* and *enchelys*, gave rise to no thought of special impurity; nor did the entomostraca, cyclops, cypris, daphnia, etc.; the macrobiotus and hydrachna, or even the rotifers, unless present in excessive numbers; but *oxytricha*, *kerona*, and *euplotes* spoke of impurity, and when the *anguillula* was found, or the flat worms, the ciliated *paramecia*, or the elongated *amphileptus* or *lachrymaria*, the chemical inquiry was sure to develop doubts as to the character of the water. Lastly, when the palmellaceous algæ in their gelatinous fronds were associated with numerous vorticels, encysted or in full vitality, sluggish amoeboids, or more active protoplasmic masses, such as *monas*, *cyclidium*, *cercomonas*, etc., the water which contained them might be set down without further examination as related rather to the swamps than to pure potable supplies.

When the teeming life of a water-sediment was first seen through the early microscopes there was opened as fascinating a field for speculation on the causation of disease as that which has recently dazzled the eyes of the scientific world with the splendor of its promise; but all this died out as the progress of time and science permitted a more intimate acquaintance with the so-called animalcules. It is needless to recall the occasional mistaken observations which sought to throw the onus of a particular disease on some innocent organism, as when Salisbury was led to saddle the paroxysmal fevers on a poor palmella. Not one of these organic forms was at the last in any ways connected with the development of disease, although the ever-varying shapes of

the amorphous protoplasmic masses of swamp waters looked, no doubt, to many, as if they might be the essential leaven of malarial disease. The existence of the infusoria in a water was noted merely as furnishing evidence corroborative of that yielded by the chemical examination.

And that examination had just succeeded in attaining to a certain degree of scientific accuracy. It had escaped from the thralldom of methods which seemed to be empiric; and that which it could do was well recognized and discriminated from that which it aimed to do but could not. Is it true that the less we know of a given subject which is our special study the greater is our assumption of knowledge? When the analyst burned the dried residue of his evaporations and found out how much was dissipated by the ignition, did he deceive himself as well as others when he announced that the water contained so many grains of organic matter in the gallon? No. He was merely embodying his results in an intelligible expression which would obviate the necessity of explaining in every instance the manner and method of his analytical work. He was familiar with all its shortcomings and fallacies, and his aim was ever their removal or the substitution of a more accurate method. Following the rough estimation of the organic matter from the loss of weight on ignition came the determination of its carbon and nitrogen as giving infinitely greater precision to the expression of its quantity; but the easier methods of approximating to the nitrogen by transforming it into ammonia, and of ascertaining the totality of the oxidizable elements by the use of permanganate of potash, gave a stronger impulse to the study of potable waters than the determination of the organic elements. In each of these instances a better expression for the organic matter was obtained than by the method of ignition, and as the results from one water were always comparable with those from another, scales of purity or impurity were created for each method based upon the results which were obtained from waters that were known to be wholesome or unwholesome, or contaminated in various ways and yet not convicted of unwholesomeness. The analysts, therefore, in announcing an examined water to be one of great organic purity, of medium purity, of doubtful purity, or an impure water, gave expression not only to the results of their analysis of the particular water, but to the results of their experience with other and known waters of the classes mentioned. What the chemical examination succeeded in doing was this: It compared one water with another, or the same water at different times, or after subjection to different modes of purifying treatment; and it intimated with more or less precision whether the organic matter present was fresh or decomposing, vegetable or animal, from the uplands or the sewers.

What it failed to do was to associate with unwholesomeness the impurities it detected, or with wholesomeness the purity which it announced. A water impure from vegetable matter or human excrement might be harmless, while another rated as of great organic purity might contain the germs of a typhoid epidemic. But practically, these possibilities, which it failed to indicate, were more than offset by the probabilities that there was a greater likelihood of pathogenic development where there was much than where there was little impurity.

Just at this stage of their progress the analysts were pushed into the background by the brilliant promise of bacteriological research. Davaine had discovered the bacillus of anthrax, and Obermeyer the spirillum of relapsing fever, but neither of these events interfered with the progress of sanitary analysis. Koch introduced the slender bacillus of tubercle to the profession, but not until the day of his comma bacillus did the new era dawn. In investigating the causation of cholera, he discovered in the water of some tanks near Calcutta that peculiar curved microorganism, which he had already found in Egypt and in India in the stools of cholera-patients, and which he regarded as the cause of the disease. It was evident, from the want of attention to cleanliness so common in India, that this tank-water was tainted with cholera dejections. A local epidemic existed around it in the huts which obtained their water from this source; and on the subsidence of the epidemic the bacillus was found to have disappeared from the water. In the progress of his studies, Koch developed a method of cultivation for the bacteria in water, and since then it has seemed as if the whole aspect of the water question had changed. The impurity of the chemist, which might or might not be harmful, and the purity, which might or might not be harmless, were to give place to positive information. Wholesomeness or unwholesomeness were to be determined instead of purity and impurity, and bacteriological cultivations immediately supplanted the study of the innocent organisms which were briefly enumerated in an antecedent paragraph. The scientific world was fascinated with the possibilities of the new method. The educated and intelligent public were kept informed of the developments and expectations by popular lectures and scientific writers, and scraps of information filtered down through the columns of the daily press to ordinary humanity. The germs of the invisible myriads that swarm as an omnipresent cloud in the "air we breathe," and in yet denser masses in the "water we drink," were susceptible of cultivation on a gelatinous field. Suspected individuals of the bacteriological flora could be transplanted to special beds where they might reach the acme of their development unimpeded by any struggle for existence with the ordinary bacterio-

logical weeds. The microscope would reveal the distinguishing characters of the new plant—root, stem and branch, bud, blossom and fruit—and biological inquiry would settle its position as a pathogenic element. But the anticipations of the enthusiasts, onlookers of course, continue to await their realization; while the workers labor sedulously in the rut of the master, realizing only a fresh illustration of the well-appreciated fact that progress in an inquiry of this kind is a plant of uncommonly slow growth. Something, however, has been accomplished. The new method has succeeded in developing the difficulties by which it is surrounded, and in casting doubt on its own results as a gauge of the quality of the water-supply; it has, in fact, reached that stage of its history which finds its parallel in the history of sanitary analysis when the chemists recognized that loss on ignition could no more be regarded as giving expression to the totality of the organic matter, and that their work must be set aside as of no practical value unless something was done to improve the methods.

The bacterioscopic method of water analysis is, like every development relating to the bacteria, so well and generally known that a reference merely is needful to its details. The culture-medium is a peptonized meat-juice, containing about ten per cent. of gelatin, which keeps it solid to about 77° F. It is prepared by digesting chopped meat in distilled water for twenty-four hours in a refrigerator. After expressing the meat, the resultant liquor is boiled, to coagulate its albuminoids, and strained through flannel. The gelatin, with some peptone and chloride of sodium, is then added, and the whole filtered while hot. Any acidity that may have developed is neutralized by the cautious addition of carbonate of soda. It is then transferred to a series of test-tubes, each receiving about ten cubic centimetres (two and three-quarters drachms). The charged tubes are sterilized by an exposure of ten or fifteen minutes in a steaming vessel on each of three successive days, and after this, if the jelly remain free from bacterial developments for several days, it may be regarded as fit for use.

When a water is to be examined, the jelly in one of these tubes is liquefied, and the water dropped in from a small-nozzled pipette, and intimately mixed by agitation. If the water is known to be poor in germs, half a cubic centimetre (eight minims) may be added; but if its character is unknown, a much less quantity should be used, or several tubes may be taken, each to receive a different quantity, or the same quantity of a different dilution. The jelly is then poured on a level glass-plate, over which it spreads, scattering its contained water-germs in its progress, and fixing each in its separate place by a rapid congelation, artificially promoted. The plate, reposing in a moist glass chamber, is then set aside at the proper temper-

ature, about 68° C., for germination and growth. After a few days the bacterial colonies appear. They vary in size and shape, some minute, some larger and spreading, some round or oval, smooth or tuberculated, and some liquefying the jelly which is their nidus. The colonies are counted, and the deduction from the experiment is that the water is good because it contained but few germs, or it is bad because it contained many germs, just as a quarter of a century ago, in the undergraduate days of sanitary analysis, the deduction was made that the water was good because there was no blackening on ignition and little loss of weight, or that it was bad because there was much loss of weight, blackening, and nitrogenous or nitrous fumes; but, as will be seen directly, the collateral experience which gave a certain amount of precision to the dictum of the chemist fails to support the deductions from the biological experiment.

There are, in the first instance, several objections to the *method* of the cultivation experiment. Bacteria may exist in the water in chains and zoöglæa masses which will not be broken up by the agitation of the tube; and, in consequence, germs which, if properly distributed, would have given rise to many points of bacterial growth, may in the actual experiment originate but few. Again, the results may differ according as the field under cultivation is exposed to or excluded from the influence of light; and in this connection Bischof has made a suggestion which may prove to have a practical value, to the effect that cultivations which are intended to develop pathogenic organisms should be conducted in the dark, as it is unlikely that those which find congenial conditions within the human body are materially dependent on the influence of light for their development and growth. There is also an important objection to the *material* of the culture-field. As in agriculture the same crop does not grow equally well on all soils, so in bacterial cultivation, germs that are found to thrive luxuriantly in one soil may fail to prosper in another; and, as a matter of fact, many organisms that do not germinate in the peptonized meat-jelly are successfully grown on potato, Iceland moss and other vegetable substances.

But, passing over such objections as these, and supposing the colonies of the culture-field to give an accurate representation of the number of germs present in the water under examination, what bearing has this number on the important question of wholesomeness? In reply to this, Bischof has presented for the consideration of the Society of Health Officers of Great Britain his experiments on the storage of New River water. A sample of this water, freshly drawn and acknowledged to be of good quality, yielded fifty-three colonies per cubic centimetre. Now, it is well known that the bacteria of certain

waters increase and multiply during the storage of the water; but there is no evidence that a wholesome water becomes unwholesome merely because it has been stored in the cistern or reservoir for so many days before it is distributed for use. On the contrary, the evidence is overwhelming that a good water remains good, and even that an impure water, chemically speaking, becomes purer during the period of its storage. Changes are in progress in the water, but these are all, still speaking chemically, in the interest of the consumer, for organic matter becomes transformed into the transition product ammonia, and this into the purely inorganic and harmless nitric salt. The present writer, in the course of Prof. Mallet's inquiry into the value of chemical analysis as a means of determining the wholesomeness of water-supplies, made many experiments, recorded in the *Report of the National Board of Health for 1882*, on the progress of purification during storage. Organic matter disappeared, and ammonia, nitrous acid and nitric acid were in sequence formed,—a retrograde movement from the notoriously pathogenic possibilities of putrefying organic matter to the harmlessness of inorganic salts. But these were merely chemical results. What did Bischof find? He found that when the water of unquestioned quality, which gave only 53 colonies per cubic centimetre (16 minims), had been stored five or six days it yielded on the gelatin-culture plate 770,000 bacterial colonies, a number seventeen times in excess of that obtained from the Thames water at London Bridge. Must we believe that the wholesome water became unwholesome during that short period of storage, although chemical experience shows the tendency of storage to be toward purification, and practical experience throws no suspicion on the quality of the stored water? We can only conclude that 770,000 colonies per cubic centimetre are not inconsistent with wholesomeness; and if a water may contain from 53 to 770,000 without question as to its wholesomeness, what value, it may be asked, attaches to the intermediate hundreds, to the intermediate thousands, to the intermediate hundreds of thousands? Nor should it be forgotten that these extreme results were obtained from the same water. The number of colonies seems, therefore, to depend on whether the water was examined on one day or on another. Of a truth, the chemical inquiry is more consistent in its views of the same water from day to day than is the bacterial culture.

The detection of minute quantities of sewage in a water, impure from other causes, is regarded by chemists as a difficult problem; but sewage in large quantity in an impure water, or in small quantity in an otherwise pure water, presents no difficulty. How does the bacterioscopic inquiry deal with this question? Bischof again replies: He added sewage to a sample of New River water, and after storing it

for six days, as in the parallel experiment with the pure water from the river, he found that the bacteria in the latter exceeded those in the tainted sample almost twenty times. Again, the inquiry is presented: What is the value of the number of colonies per cubic centimetre of the water examined? Since their number throws no light on the wholesomeness of a water, and gives no intimation of the existence of that which is known to be often a dangerous contamination, the chemical analyst may be exonerated from all imputation of personal, professional or scientific prejudice if he inquire,—what then is the value of the gelatin-culture in practical sanitary work?

Necessarily the bacteriologist has to fall back upon his ability to discriminate between the microphytes—to distinguish those that are harmless from those that are harmful. To do this he has to transfer them to blood-serum, potatoes, bread paste, and other nutritive media to obtain pure cultivations, and to examine these microscopically for the determination of their characteristics, which are simple enough, it is true, but complex in their very simplicity. The bacteria are thick or thin, straight or curved, oval, rounded or square at the ends, long and filamentous, or so short as to merge into the torula or coccus; the cocci of all sizes, consistent with their individuality as cocci, and presenting every form of aggregation from single to zoöglæa; and the whole, perhaps, mixed with shreds of mucor, mycelial threads, spores, etc. Every water has a variety of forms, though in some the bacteria, and in others the cocci predominate. The observer is lost in the uncertainties of his field, and no one knows which of the forms, if any, are dangerous.

When facts are lacking, speculation never fails to come to the front. The possibility of the transformation of species, as suggested by Buchner and Nägeli, looms up before the mind of some and envelops every microbe in an obscurity of pathogenic possibilities,—harmless they may be under ordinary circumstances, but capable on account of the rapid succession of generations, of becoming developed into dangerous characters. A series of ages was necessary for the evolution of the imperial man of to-day from the shivering savage of pre-historic times, but the bacterial ages are so brief that with a changed environment a day may suffice to alter forms, dispositions and endowments. And the clinical experience and general knowledge of the physician start into prominence in this connection, recalling how tonsillar and other inflammations assume a diphtheritic aspect, and fevers a typhoid type, and how even the dangerous typhus, nay, even the plagues and pestilences of former times would assuredly be recalled by a return to the insanitary conditions that were associated with their outbreak. Other observers, while exonerating many of the

bacteria from the charge of virulent possibilities, are inclined to believe that in numbers there is danger; that there is a greater likelihood of the presence of pathogenic species in a water that contains many species than in one that has few. Others, again, recognizing the harmlessness of bacterium *termo*, are inclined to believe that in numbers there is safety; that there is a greater likelihood of the presence of pathogenic individuals in a water that contains few individuals or species than in one that has many. These remember the destruction of septic poison by the progress of putrefaction; they remember Koch's opinion that the comma bacillus probably gives way before the putrefactive bacteria; they recall the struggle for existence that pervades creation, and that the dominating race to whom the conditions are congenial, usually denies the means of vigorous growth to the unacclimated stranger. Hence, when a water contains few microbes they fear that the pathogenic germ, if present, will have full possession of the field and attain the utmost development of its virulence unchecked by the aggressive growth of other and harmless competitors.

Fortunately, in this incertitude, there is one thing certain, and that is, that the majority of the water bacteria are harmless. Daily experience proves this, in view of the numbers in every glass of water. The bacteria of putrefaction cannot be considered pathogenic. A draught of tainted water may occasion diarrhoea, but this appears to be due to the products of their vital action on dead organic matter rather than to the action of their vitality on the living system. In the retrogression of the elements of dead organic matter to the inorganic state, effected, as is now known, by the vital processes of the microphytes, there are many transition products, some of which are surely unwholesome, but nature, careful always, has attached to them this putrefactive taint to indicate that the work of the microbe is as yet unfinished, and the material unfit for human ingestion. Taken by themselves, without their organic nidus, there is no evidence that these bacteria are injurious. They are present in many waters in association with decomposing matters, but this association negatives their claim to be considered water-bacteria.

The water-bacteria of potable waters are, however, allied to the microbes of putrefaction by the nature of their work. Like the latter, they are engaged in the regeneration of the world, preparing the ammoniacal results of putrefactive fermentation for assimilation by superior vegetation. From what source do our waters obtain their myriads of bacteria? Pure rain-water—that is, water that has been collected after the atmosphere has been cleaned by a previous fall—has few organisms, and deep well-waters have also few; but water that has come in contact with the surface of the earth has many. The water-

bacteria are derived from the surface of the soil. Dr. Theo. Smith, of Washington, D. C., in cultivating the waters of the Potomac River on the gelatin-field from month to month,¹ was surprised to find that in summer they yielded only from 50 to 200 colonies per cubic centimetre, while in winter the number ran up to 4000. Temperature appeared to him to be at fault as a developmental agency; but he explained the causation of the increase in noting the facts that the smaller numbers were always associated with a clear and unclouded condition of the stream, while the larger numbers were as invariably associated with turbidity. The bacteria were washed into the stream with the particles of their habitat. Warrington has lately shown that the organisms of nitrification are confined mainly to within one or two feet of the surface. In the soil these bacteria complete the transformation of organic ammonia into nitric salts, and when washed by rainfalls and snow-meltings into the river course, they continue their work on the ammonia of the water as the agents of the so-called purification of the running stream. Several years ago the present writer experienced much difficulty in explaining the favorable change which took place in cistern-waters that are stored underground, as compared with similar waters contained in clean cypress-wood tanks; and the anomaly of finding a purer water in a wooden cistern with a thick layer of foul sediment at the bottom than in one that was new or newly cleaned, was even more unintelligible until the fact was recognized that the bacteria of nitrification had been introduced into the one set of reservoirs and not into the other. The dust of summer, settled on the shedding roofs and washed into the cisterns with the inflow of subsequent rainfalls, accumulated in the progress of time to a fermenting mass which tainted the water; but for a long time before this ultimate result was reached it effected the dissipation of ammonia, and, chemically speaking, improved the character of the water by the introduction of the microbes of nitrification. The same purification would have been effected by substituting for the organic compost from the roof a layer of clean sand or gravel from the surface of the soil. The writer has frequently started the process of nitrification in laboratory experiments on dilute ammoniacal solutions by dropping into them a fragment of clean gravel or straw picked from the surface of the ground. These bacteria which enter into our river waters by thousands in every cubic centimetre when the streams are turbid, exercise no injurious influence on the human system. They seem even to have no transition products to complicate this question; for the nitrogen on which they operate is already on the verge of the inorganic state. It is true that the presence of

¹ THE MEDICAL NEWS, 1887, l. p. 404.

nitrites in notable quantity in a water is generally regarded as lowering the standard of its quality on account of the association of such waters with the propagation of typhoid fever; but this reputation of nitrified waters is referable to the material from which the nitrites are formed, not to their bacterial manufacturers. Excess of nitrites in a water is due to preëxisting sewage, and we know the typhoid germ to be the occasional associate of the sewage. In fact, the results of sanitary investigations into the propagation of acute infectious diseases by the water-supply, point clearly to animal excreta as the causative agencies. A peculiar bacillus or micrococcus may be concerned in each instance, as in cholera we have the comma bacillus, but if there is no sewage in the water the probability of danger is small. If sewage be excluded, the number of microbes in the cubic centimetre is of comparatively small consequence in determining questions of wholesomeness.

We must conclude from this brief review of certain questions relating to the existence of the micro-organisms of water, that the gelatin culture-test is valuable only in its doubtful promise for the future. At present, in the hands of the sanitary inquirer, it gives but little information, and that little is surrounded on all sides by interrogation points. In the laboratory of the scientific investigator new methods may be discovered by which pathogenic germs may be isolated and identified; but until that time arrives the sanitary analyst must depend upon the chemical results as translated in each particular instance by the aid of the ascertained sanitary environment of the water, and however much he may cultivate the microbes, he should not forget to inspect that other field of microscopic life to which reference was made at the beginning of this paper.

MEDICAL PROGRESS.

Silico-fluoride of Sodium as an Antiseptic.—ROBSON, in the *British Medical Journal* of May 19, 1888, reports that the following are the conclusions to which he has come, after an extensive and varied trial of the fluosilicate.

1. That "salufer" (silico-fluoride of sodium) is an efficient antiseptic.
2. That the powder is a strong irritant, even acting as a caustic if dusted on a raw surface, and is, therefore, in that form, unavailable for surgical purposes.
3. That a solution of one grain to an ounce of water is quite strong enough for ordinary purposes, in that strength being apparently unirritating.
4. That a solution of ten to twenty grains to a pint may be safely used to syringe out closed cavities, even where one cannot be certain of all the fluid returning.
5. That the solution is unirritating to the hands, which is no small advantage to those operators whose fingers are easily irritated by the ordinary antiseptic solutions.
6. That the solution acts on the glaze of porcelain after long use, and corrodes steel instruments, but that

sponges are unaffected by it. Mr. Thomson kindly suggested to him the addition of bicarbonate of soda to the solution of "salufer" to prevent it corroding steel instruments; this certainly diminishes its action on steel.

8. That a very convenient and comfortable antiseptic poultice may be made by soaking Gamgee tissue or absorbent wool in a hot solution (ten grains to the pint), wringing it free from excessive moisture, applying it to a wound, and covering with gutta-percha tissue.

8. That although for ordinary surgical work he may still employ perchloride of mercury, in all cases where there is danger of absorption, as in syringing out cavities, he will employ "salufer."

9. That he believes "salufer" will prove to be of great use to obstetricians, it being both safe and efficient.

10. That it acts very efficiently as a deodorizer to the hands. After examining carcinoma of the uterus or rectum, by washing and steeping the hands in a saturated solution, the odor was removed more efficiently than by any solution with which he is acquainted. Messrs. Reynolds & Branson have made some compressed tabloids, each containing forty grains—that is, sufficient to make a quart of solution. They have also been good enough to carry out his wishes in making a dressing of "salufer" wool.

In all the cases related this "salufer" wool has been the dressing employed, a layer of gauze wet with the "salufer" lotion covering the wound, and intervening between it and the wool.

For Painful Menstruation.—DR. B. W. RICHARDSON (*Asclepiad*, No. 18) recommends the following formula:

R.—Croton chloral	gr. ij.
Oil of juniper	ʒiij.
Glycerin	ʒj.
Distilled water	ʒiiss.

To make a draught; to be repeated every five or six hours until relief is obtained.

The Prevention and Treatment of Cholera.—CANTANI, at the recent Congress für Innere Medicin, at Wiesbaden, presented a paper on this subject, of which the following is a résumé.

Until recently the treatment of cholera has been, in the main, symptomatic. Some attacked the diarrhoea with opiates, alum, acetate of lead, etc.; others endeavored to eliminate the poison by emesis and purgation; still others attempted acidifying the stomach, alcoholic measures, hydrotherapy, etc.—still, on the whole, these therapeutics were unsuccessful. A change took place as it was recognized that: 1. One cause of death from cholera is the coagulation of the blood. 2. The comma-bacillus is the source of the intestinal irritation. 3. A second cause of death is the collapse from acute, chemical cholera poisoning. Both causes may act alone or together. Still, the danger depends upon the bacillar infection of the intestine.

From the preceding, the demands for treatment are indicated: 1. Limitation of bacillus multiplication in the intestine. 2. In the removal, or neutralization of the cholera poison, and 3. In relieving the coagulation of the blood. The first indication can only be met in the beginning of the disease, be it by unfavorably affecting their soil by acids, or by destroying the bacilli; but

they are not to be reached by mouth and stomach, but only through the rectum by enemata.

The only remedy which renders sterilization of the intestinal canal possible, without doing the patient harm, is tannic acid. Hot injections of tannic acid (100.4°-104°) in the strength of 75, 150 or 300 grains to two or three pints of hot water, with the addition of 20 to 50 drops of laudanum, are capable of destroying the bacilli in the intestinal canal or at least of checking their development. This has been demonstrated by experiment as well as by experience at the bedside. Tannic acid enemata find special application in the incipient diarrhoea. Rightly applied, they are capable of checking the development of the disease. In times of cholera, they should be used in every suspicious diarrhoea.

Concerning the second indication, there is to-day no longer any doubt of the existence of a chemical cholera poison, which may cause collapse without any notable diarrhoea. The condition of the intestinal contents has a definite influence upon the development of this poison (ptomaine); the more bacilli in the canal, the more the poison. We know no antidote; fortunately, tannic acid is capable of restraining the poison already formed in the intestinal canal, and preventing its absorption.

For the coagulation of the blood and its sequelæ, we have the introduction of water into the organism, be it by injection into the veins or into the subcutaneous connective tissue. The latter is entirely harmless and easily performed, and to be preferred to the dangerous and difficult intravenous injection. The hypodermatic injection of a solution of carbonate of sodium 3 parts in 1000 with a solution of chloride of sodium 4 parts in 1000, replaces the lost water, meets the need of the tissues for acids, and furthers the elimination of the noxious matters in the blood.

In conclusion, the tannic acid enemata and the salt water hypodermatic injections fulfil the three chief therapeutical indications, but both are stimulant and reviving by reason of their warmth. The enemata are used preferably in the beginning, the hypodermatic injections only in the later stages of the disease, but in advanced cholera it is best to use both.—*Wiener medicin. Presse*, May 20, 1888.

Exsection of the Vermiform Appendix in Perityphlitis with Consecutive Suppurative Peritonitis.—The Vienna correspondent of the *British Medical Journal* of June 9, 1888, writes that DR. BRENNER, Assistant to Professor von Dittel, showed a patient, aged nineteen years, who had been admitted into Professor von Dittel's clinic in March last, with symptoms of severe intestinal obstruction. The history of the case and the intense pain in the cæcal region led them to conclude, with a certain degree of probability, that they had to deal with perityphlitis and consecutive suppurative peritonitis. Laparotomy was performed on the day of admission. After opening the abdomen, a great quantity of pus escaped; the intestines were washed with a solution of salicylic acid; and on close examination it was found that there was an abscess in the region of the cæcum, around the vermiform appendix, which was perforated. The vermiform appendix was ligatured and removed. The part of the cæcum which had become affected by the suppurating process was drawn forward and fixed to the abdominal wound by means of sutures, as resection of the intestine could

not be done, owing to the collapsed state of the patient during the operation. The abdominal wound was closed and healing took place by first intention. Three other cases of suppurative peritonitis following perityphlitis were treated in the wards of Professor von Dittel by laparotomy, but all ended fatally. Dr. Brenner remarked that the recent advance in the surgical treatment of these cases consisted in the fact that operation was resorted to at an early date, and that the affected part of the intestine was removed from the abdominal cavity. This was the first case of healing after exsection of the vermiform appendix when general peritonitis was already present.

Salicylate of Mercury.—The *Revue Générale de Clin. et de Thérapeutique* of May 17, 1888, gives the following formulæ for salicylate of mercury, as used in Brazil:

In pill form:

Hydrarg. salicylat.	gr. ⅙.
Ext. geissosperm. læv.	gr. ⅔.
Ext. glycyrrhiz.,	
Glycyrrhiz. pulv.	aa q. s.
M. ft. in pil. ten in num.	
Dose from two four pills daily.	

For external use:

Hydrarg. salicylat.	2 to 5 parts.
Vaselin.	30 "

Hypodermatically:

Hydrarg. salicylat.	gr. ⅙ to ⅙.
Aquæ destill.	3 ⅓.

For an injection.

By urethral injection:

Hydrarg. salicylat.	gr. 2 ¼.
Sodii bicarbonat.	3 ⅗.
Aquæ rosæ.	3 2 ¼.

For an injection.

These injections should be given daily.

Saccharin Diabetes and Alterations in the Pancreas.—LANCEREAUX, in a recent communication to the French Academy of Medicine, expressed the view that diabetes, as the term is commonly used, includes several processes one of which especially affects the pancreas. The first he described as acute diabetes, having a rapid evolution and course, and accompanied by well-marked changes in the pancreas. The second is a type better known than the first, accompanied by an increase in the patient's flesh, by chronic disease of the articulations, and not usually characterized by lesions of the pancreas; this condition is known as constitutional or fatty diabetes. A third type is that produced by a lesion of the nervous system, traumatic or emotional; it is accidental, accompanied by mild symptoms, is wanting in pathological organic changes, and tends to recovery. Lanceriaux thought that the clinical significance of this classification is evident.—*Gazette Hebdomadaire*, May 4, 1888.

Acute Parenchymatous Tonsillitis Treated by Cocaine.—At a recent meeting of the Clinical Society of London, DR. DE HAVILLAND HALL read notes of three cases.

Case 1.—A laborer, aged twenty-eight, was admitted into

Westminster Hospital on Sept. 28, 1887, suffering from quinsy. He had had two similar attacks in the last five years. On admission, he had been ill four days. The right tonsil and adjacent soft parts were enormously swollen, and he was unable to swallow without the greatest difficulty and pain. On the 30th there was complete inability to swallow, but, after painting a twenty per cent. solution of cocaine freely over the whole of the fauces, the patient was able to swallow some bread and milk. The same night the left tonsil became affected, and the cocaine solution was applied again next day with an equally good effect, and the day following he was able to swallow bread and butter. No suppuration occurred. The patient left the hospital quite well after being in one week instead of four and three weeks respectively, as on the two former occasions.

Case 2.—A publican, aged twenty-five. When seen, his complexion was dusky; he was suffering from some dyspnoea and great dysphagia. Both tonsils and the soft palate were greatly swollen, and were covered with a viscid secretion, but there was no false membrane. Pulse 120, feeble. Urine, specific gravity 1030, loaded with albumen. The patient's condition was a most anxious one. The throat was swabbed out with a twenty per cent. solution of cocaine, and the application was repeated in ten minutes. Five minutes later, the patient was breathing more easily, and was able to swallow half a pint of egg, milk and brandy. During the next two days, applications of cocaine were made night and morning, and one on the third day. The patient gradually improved, no suppuration occurred, and a week later the urine was free from albumen, and he was well.

Case 3.—A porter, aged thirty-nine, attended at the Throat Department of the Westminster Hospital on Nov. 16, 1887, complaining of sore throat and inability to swallow for thirty-six hours. He was previously quite well. The left tonsil and adjacent parts were swollen, and there was a yellow patch on the tonsil. Pulse 88, fair volume. Temperature 102.2°. The urine contained a trace of albumen. A twenty per cent. solution of cocaine was applied, and the patient was soon able to swallow half a pint of bread and milk. Four days later the patient had no difficulty in swallowing, and was practically well.

In all three cases, as soon as the patients could swallow easily, tincture of the perchloride of iron, with or without quinine, was ordered. Dr. Hall pointed out that cocaine has a twofold action in these cases; it diminishes the sensibility of the parts to which it is applied, and at the same time lessens the blood supply; hence deglutition is much facilitated. He also thought that it checks suppuration. He advised the throat to be sprayed with a solution of bicarbonate of sodium, ten grains to the ounce, before the cocaine is applied; by this means less cocaine is needed, as it appears that cocaine acts more efficaciously in the presence of an alkali. Dr. Semon said he had seen cases in which cocaine had been too freely used. Patients obtained cocaine pastilles from the chemist, and used them indiscriminately. A lady suffering from hay asthma, with cough, coryza, etc., being ordered a ten per cent. solution, procured one of twenty per cent., which she used occasionally for two years to the nostril. One night, after so using it, she awoke from sleep feeling very ill, and with her heart's action very irregular. She recovered after a time, and had since then had a whole-

some fear of cocaine. Another patient, a gentleman, had severe poisonous symptoms from the use of only the sixth part of a grain. In fact he (the speaker) was of opinion that some patients could not use it. On the other hand, he had seen a patient suffering from tonsillitis, who had had aphasia for twenty-four or thirty-six hours, become able to swallow with some comfort only ten minutes after an application of cocaine to the fauces.

Dr. Hall, in reply, mentioned that last week he had used a twenty per cent. solution of cocaine to the nostril of a young man, who was very strongly affected by it, became faint, and had to lie down for nearly an hour before the effects passed off, although ether and other stimulants were given. He always applied the solution now with a brush, all the cases in which untoward symptoms had showed themselves having been when he used the spray. He observed that peri-tonsillar inflammation seemed to take place in some cases when practically no tonsillar tissue was left. He thought that cocaine was only of use in parenchymatous tonsillitis; the same good results had not followed its use in follicular tonsillitis.—*British Medical Journal*, May 19, 1888.

Laxatives in the Treatment of Fatty Heart.—KISCH, in the *Internat. Klin. Rundschau*, No. 10, 1888, prescribes a useful purgative for this condition as follows:

R.—Pulv. rad. rhei.,
 Extr. aloes,
 Ext. jalap. aa gr. 30.
 Pil. mass. q. s.
 Ft. pil. thirty in num.
 Sig.—One pill at evening.

In anæmic patients:

Ferri sulph. pur. gr. 45.
 Extr. aloes gr. 30.
 Pil. mass. q. s.
 Ft. pil. thirty in num.
 Sig.—One pill morning and night.

When compensation is becoming exhausted digitalis may be combined with laxatives as follows:

R.—Pulv. rad. rhei.,
 Ext. aloes. aq.,
 Pulv. fol. digital. aa gr. 30.
 Pil. mass. q. s.
 Ft. pil. thirty in num.
 Sig.—One pill every three hours.

Erythrophlein.—DR. ADOLF ONODI gives, in the *Orvosi Hetilap*, a summary of his observations on twelve patients, and concludes that erythrophlein is undoubtedly a powerful anæsthetic, the effect of which comes on more slowly, but, on the other hand, lasts much longer, than that of cocaine. Local anæsthesia persists for eight hours and even longer from the time of instillation. It has, nevertheless, very disagreeable after-effects, such as headache, giddiness, sometimes even fainting fits; in particular it dims the cornea for several hours. When applied to the nose, the mouth, the soft palate, and the external orifice of the urethra, a 0.20 per cent. solution caused a slight sensation of burning. He did not venture to use stronger solutions.—*British Medical Journal*, May 19, 1888.

THE MEDICAL NEWS.

A WEEKLY JOURNAL
OF MEDICAL SCIENCE.

COMMUNICATIONS are invited from all parts of the world. Original articles contributed exclusively to THE MEDICAL NEWS will be liberally paid for upon publication. When necessary to elucidate the text, illustrations will be furnished without cost to the author. Editor's address, No. 1004 Walnut St., Philadelphia.

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SATURDAY, JUNE 30, 1888.

THE INFLUENCE OF HYDROFLUORIC ACID ON TUBERCLE BACILLI.

IN THE NEWS of May 5th, DR. E. L. TRUDEAU narrated some carefully performed experiments, showing the influence of hydrofluoric acid in retarding or checking the growth of the bacilli, and he found that in rabbits inoculated, less tubercle invaded the lung tissue in those subjected to the inhalations. In the *Bulletin Medica*le of June 3d, GRANCHER and CHAUTAUD report the results of their studies on this important question. Rabbits inoculated with tubercle cultures, and exposed for two hours daily to an atmosphere which had passed through a ten per cent. solution of hydrofluoric acid, died about the same time, and showed the same lesions as animals not subjected to the treatment. Solutions of greater strength, forty per cent. and sixty per cent., were also ineffectual, and they conclude that the inhalations have no action on the evolution of the bacilli in experimental tuberculosis. They found the resisting powers of the bacilli in cultures much greater than had been supposed. Even cultures treated for four hours with vapors from solutions of forty, sixty and eighty per cent., and, lastly, the pure commercial acid destroyed life, but more slowly, indicating that the action of the gas diminished the virulence of the bacilli. The authors regret that these observations do not encourage the hopes which have been entertained as to the high therapeutic value of inhalations of hydrofluoric acid in phthisis.

A MONUMENT TO THE DISCOVERER OF CHLOROFORM.

THE Jefferson County (N. Y.) Historical Society proposes to erect a monument to the discoverer of chloroform, Dr. Samuel Guthrie. That Society assumes this graceful duty in addition to that of perpetuating the memory of the soldiers who fell at the battle of Sackett's Harbor, the battlefield having been secured in the interests of these two patriotic undertakings.

Dr. Guthrie was born in 1782, his father having been a physician of Brimfield, Mass.; he died in 1848. During the War of 1812 he was examining surgeon, and did chemical work for the military posts in northern New York. In 1817 he took up his residence at Sackett's Harbor. He published in *Silliman's Journal* for October, 1831, an article describing the preparation and properties of "A Spirituous Solution of Chloric Ether." The ether was made by distilling chloride of lime with alcohol. His paper was in the hands of the publisher as early as May 8, 1831, and was completed some months before that date. These data conclusively establish the priority of the American discovery of the world's great anæsthetic, since Liebig had not published his account until November, 1831, and Soubeiran's did not appear until January, 1832. The race between these three independent discoverers is a close one, but to Guthrie must be awarded the honor of first making and describing the substance which we now know as chloroform—a name originated by Dumas in 1835. It is a curious fact that Guthrie, during forty years of his life, devoted much time and thought to the improvement of gunpowder, and it is quite possible that both that destructive compound and the anæsthetic that was to be were in hand at one and the same time.

THE Centennial volume of the *Transactions of the College of Physicians of Philadelphia* has been made the subject of a *feuilleton* by Dr. Joseph Schreiber in a recent number of the *Wiener klinische Wochenschrift*. As an illustration of the appreciative and sympathetic style of the original, we may quote the concluding paragraph.

"The impression we have received from reading the *Transactions* is truly beneficial and satisfying. We meet a medical society composed of *savants* and practitioners, in useful sympathy with the community, and honored and supported by public opinion; a medical society which, con-

ducted on true democratic principles and animated by a spirit of perfect equality, has for its president one who, though clothed with no academic dignity, has acquired a name, as author and physician, that resounds far and wide. May the fresh pulsating life and youthful energy of the College be preserved for all the centuries to come."

THE new Institute of Hygiene at Rostock, of which Dr. Uffelmann is director, was opened at the beginning of the present summer-course. The southern wing of the former Gynecological Institute has been reconstructed for the purpose—the northern wing being occupied by the new chemical laboratory, and contains, besides rooms equipped for experimentation on animals and the servants' apartments, eight rooms for the purposes of academic instruction. On the ground floor there is a room for specimens, another for bacteriological research, another for the library and the room of the director; on the upper floor the lecture room, two rooms for practitioners, and one for scales and other fine instruments. Adjacent to the Institute on the west is an extensive garden, permitting of the study of the earth and of the air.

The advance which the opening of this Institution brings with it is most marked, as the building hitherto devoted to instruction in hygiene was, in extent and accommodations, insufficient to meet the demands. The present building, however, is satisfactory in all respects. The practical courses of the Institute are well attended.

THE Rhode Island Medical Society, at its seventy-seventh annual meeting, held at Providence on June 14th, elected Dr. Albert Potter to the presidency for the ensuing year.

THE American Rhinological Association will hold its sixth annual meeting at Cincinnati, Ohio, September 12, 13 and 14, 1888.

THE Trustees of the Fiske Prize Fund have awarded a premium of \$200 for the best essay on "What changes has the acceptance of the Germ Theory made in measures for the prevention and treatment of consumption?", by Dr. Charles V. Chapin, of Providence. No award was made for any essay on the subject, "Antisepsis in Medicine and Surgery, with original observations and experiments."

The following subjects are submitted for the years 1888-1889: 1. "The Surgical Treatment of Wounds and Obstructions of the Intestines." 2. "Asepsis versus Antisepsis in Surgery and Midwifery." 3. "The Rôle of Ptomaines in Infectious Diseases." 4. "The Pathological Effects of Chronic Alcoholism." For the best essay on either of these subjects a prize of \$200 is offered.

ON the occasion of the celebration of his seventieth birthday, at Utrecht, on May 28th, the Medical Society of Munich elected Prof. Donders an honorary member of the Society.

RECENT explorations at the Island of Cos have unearthed the site of the renowned temple of Æsculapius, the third in prominence in the mind of the Greek world. The only ones that were held in higher esteem were the temples at Epidauros and Athens. An altar has been found and a marble serpent, the well-known attribute of the god of medicine. The description that Strabo gives of the temple at Cos would indicate the possibility of a rich harvest if systematic excavations are carried on at this site. He says that its shrines were full of votive offerings, including priceless works of art, and its walls abounded in inscriptions recording the cures wrought there, which Hippocrates is said to have studied and from which he learned much of his medical lore. The excavations at the Asclepieion at Athens have yielded valuable results, but much remains to be learned concerning the cult and ritual of Greek medicine, which can only be discovered by the bright spade of the scholarly explorer.

THE conditions, symptoms and treatment of the rabid dog are the subject of an interesting circular just published by Dr. S. W. Abbott, of the Massachusetts State Board of Health. This circular makes the surprising statement that the total number of human deaths, registered during the past forty-six years in that State, has been not more than seventy-two by hydrophobia. This leaflet by Dr. Abbott is manifestly designed for popular distribution—the public statutes requiring its publication—and it is probably for that reason that he makes use of the term hydrophobia, instead of rabies, in describing the disease in the dog, wolf, cat, and other lower animals; although at the same time he states plainly that the dread of water is not to be looked for in the mad dog, but rather an uncommon desire for water.

SOCIETY PROCEEDINGS.

THE ONTARIO MEDICAL ASSOCIATION.

The Eighth Annual Meeting, held at Toronto, June 13 and 14, 1888.

(Specially reported for THE MEDICAL NEWS.)

THE meeting was convened at 10 o'clock on Wednesday, June 13th. The chair was taken by the President, Dr. J. W. Rosebrough, of Hamilton. This meeting was the largest and most interesting yet held by the Association. There were about two hundred members present, exclusive of guests. The papers were of marked interest, the large majority being of a surgical character.

WEDNESDAY, JUNE 13TH.

After the reading of the minutes Dr. Graham presented the report of the Board of the

ONTARIO MEDICAL LIBRARY ASSOCIATION.

A joint stock company had been formed under this title, the shares being placed at \$5 each, payable in five annual instalments. Already stock amounting to \$4000 had been subscribed, and about one thousand volumes, besides many pamphlets, had been donated. He appealed to the Association individually and collectively for support.

The report was adopted and a donation of \$150 voted from the funds of the Association.

DR. F. W. ROSEBROUGH then delivered

THE PRESIDENT'S ADDRESS.

He suggested that this society should affiliate with the British Medical Association, which has now over twelve thousand members and forty-seven branches, and under whose auspices is published the great *British Medical Journal*. He referred to the history of medical science; said that science is still largely empirical, but that the truth is becoming more and more firmly established, that in order to conquer nature you must obey her. The president gave an interesting account of the old days of medicine and medical education in Toronto, mentioning the names of Widmer, Rolph, Bovell, Beaumont and Workman. He urged that better facilities for scientific research should be provided for students in Canada, so that it would not be necessary for them to go abroad. These facilities being provided, the higher the standard was the better, both for the student and his patients.

DR. GRASSETT, of Toronto, read a paper on

URETHRAL DISCHARGES.

After referring to their frequency and the depressing mental effect produced in many patients, he classified them, according to the nature of the discharge:

1st. *Urethritis*, a catarrhal inflammation, of which there are:

a. Simple urethritis, caused by leucorrhœal discharges, excessive coition, mechanical irritants, etc.

b. Specific urethritis, or gonorrhœa. It is not yet proven that this is due to the gonococcus, but the almost constant presence of this microbe in the discharges indicates that it possesses causative properties.

As to treatment, both the abortive and the expectant plans have proved disappointing. The plan found to be most satisfactory might be summarized as follows:

Rest in bed, cleanliness of the urethra, secured by frequent passage of urine or by irrigation with hot water. The penis should be allowed to hang in a natural position to permit of the escape of the discharge, and a dressing of salicylic gauze covered with a rubber bag might, with advantage, be applied over the end of the penis. The diet should be unstimulating; alcohol and tobacco forbidden. Alkalies, to keep the urine normal or slightly alkaline, may be given. Injections, other than hot water, are injurious in the early stage. Sulphate and sulphocarbonate of zinc in dilute solution are beneficial later, as also is silver nitrate.

2d. *Gleet*. This may occur in spite of the most careful treatment the circumstances will allow. Probably due to extension of the inflammatory process to the sub-mucous tissue, causing thickening, with some stricture. There may be a granular condition of the mucous membrane. The stricture should be dilated, and any injections used should be only slightly stimulating; astringents to be frequently changed. Caspar, of Berlin, recommends a combination of mechanical and chemical therapeutics. He used nickel-plated bougies with grooves which are filled with medicated paste, which is melted on inserting the bougie into the urethra. After trying iodoform, resorcin, zinc, etc., he has the best results from this combination:

Ol. theobrom.	100 parts.
Argent. nitrat.	1-1½ "
Bals. copaibæ	2 "

This lessens the discharge at once, and the microscope shows a rapid reduction in the proportion of pus cells.

3d. *Prostatorrhœa*. First accurately described by Dr. S. W. Gross, of Philadelphia. It consists of a clear, glairy mucus, most frequently seen after straining at stool. It comes from the acini of the gland, and is increased by masturbation, excessive venery, hard riding, etc. Several cases were cited illustrating the good effects following tonics and the local application of silver nitrate.

4th. *Spermatorrhœa*. Used by quacks and empirics to include even physiological nocturnal emissions. The causes of spermatorrhœa are, among others, hyperæsthesia or irritation of the genitals, inflammation of the prostate or urethra, phimosis, etc.

The treatment should be largely hygienic. Avoid alcohol and tobacco. Empty the bladder before retiring and the first thing in the morning. Give light diet, keep the bowels open and abstain from exciting exercises, as horseback riding. Bromide of potash often acts beneficially; circumcise a long prepuce; treat all causes of rectal irritation, as fissures, piles, etc. Passing large bougies and the local application to the prostatic urethra of silver nitrate (gr. x to xx, ad ʒi) are also useful.

The depressed mental condition of the patient must not be neglected, as much depends upon his intelligent coöperation.

DR. MCFARLAN, of Toronto, thought that boys in school should be carefully cautioned against the evils of self-abuse.

DR. GROVES, of Fergus, drew no distinction between simple and specific urethritis, as they could not be distinguished from each other. Absolute rest in the early stage was essential, and the administration of alkalies, unless the urine were intensely acid, is of doubtful utility.

DR. BURT, of Paris, thought spermatorrhoea should not be grouped with the other diseases discussed, as it had no pathological connection with the urethra. A solution of silver nitrate (one-quarter per cent.) is best in the treatment of urethritis. In stricture, an instrument which can be dilated after it enters the urethra should be used, since one sufficiently large to dilate thoroughly the stricture cannot be passed through the meatus, that being the narrowest part of the canal.

DR. A. W. JOHNSTON, of Danville, Kentucky, then read a paper on

SOFT MYOMA OF THE UTERUS.

He showed that the soft myoma is an homologous growth of the adenoid lining of the uterus, being more nearly akin to the mucous polyp, and not a variety of the hard myoma or fibroid. There is a constant cell development going on in the endometrium, and over-development of this adenoid tissue constitutes the soft myoma.

A case under the care of Lawson Tait was here cited in which a soft myoma occupied the whole uterus. These cases are extremely rare, the reader having met with but two cases. The growth consists of a loose network of fibrils inclosing lymph spaces, with also some of the muscle cells of Billroth, the whole a soft, fluctuating, myxomatous mass. Several engravings of microscopical sections were here shown. There are two main causes of these growths: 1st. The result of the damming back of lymph into the spaces of the adenoid uterine lining; 2d. Unusual development of the uterine follicles. From their peculiar structure it is evident that tapping and electricity must alike be futile, and the only successful treatment is early and complete extirpation.

DR. WHITEMAN then read a paper on the sources of error in the diagnosis and treatment of

EMPHYEMA.

One case, which had been treated for three months for "warm fever," recovered in six weeks after opening and drainage. Another, a case of "diaphragmatic empyema," gave much trouble in diagnosis, from its first acting like an attack of biliary colic, from which the patient had suffered two years before. Opened between ninth and tenth ribs, and about one and a half pints of fetid pus discharged. Recovered with free drainage and antiseptic washings. A third was one of double empyema in a child four years old. Open drainage of the right side and three aspirations of the left; recovery.

In treatment, he illustrated the importance of a double drainage with free ingress and egress of air by a case in which a single opening had been made, and the attending physician, fearing evil consequences from admission of air, had wedged one end of a long rubber tube tightly into the opening; the other extremity of the tube being placed under carbolized water in a vessel beside the bed. Being called, as the woman was dying, Dr. Whiteman removed the tube, when about a quart of very fetid pus escaped. In this case, daily washings of the chest cavity were said to have been made, using the tube as a siphon. He maintained that such a course is dangerous, if the lung has in any measure lost its elasticity from long pressure, or is bound down by adhesions, in which event one might as well try to wash out a keg, through such a tube, with a single opening and without admission of air.

DR. T. K. HOLMES, of Chatham, presented a report of twenty-two cases of empyema occurring in his practice, with eight deaths and fourteen recoveries. Four died of phthisis, and one each from traumatism, embolism, asphyxia and pyæmia.

He recommended that the pus be evacuated as early as possible by the introduction of a drainage tube through a single opening made by a large trocar. This maintains free and constant drainage, is simpler than the double opening and admits of irrigation of the cavity, should this be thought necessary.

A study of the twenty-two cases led the author of the paper to the following conclusions:

1. The importance of recognizing cases early.
2. Of the necessity of giving free and constant exit to the pus.
3. That when pus has discharged through the bronchi with no amelioration of symptoms, an external opening may be followed by the best results.
4. That the most unpromising cases are those occurring in the puerperal state and those in phthisical subjects.
5. That resection of the ribs is necessary in but a small class of cases.
6. That the entrance of unpolluted air into the pus cavity does not prevent cases doing well.
7. That washing out the cavity is unnecessary when the pus is sweet.

DR. MACCULLUM, of London, then read notes on

THE PAST YEAR'S WORK IN PHYSIOLOGY AND HISTOLOGY HAVING A PATHOLOGICAL AND CLINICAL BEARING.

After showing proof that collapse of the lung does not often follow opening the pleural cavity, and that the jar given by the heart aids in the elimination of CO₂, Martin's experiments on the coronary arteries were taken up. From the fact that they fill by blood-pressure alone during systole, no degenerative changes can be present in a heart muscle, from disease of the aortic valves, whilst good blood-pressure is being maintained, unless the coronary arteries themselves are diseased. Gaskell's (*Journ. Physiol.*, vol. vii.) experiments proving that inhibition of the heart is essentially a nutritive process led the author to draw the following conclusion: That frequent electrical stimulation of the vagus would be proper treatment of degenerative change in the heart muscle (seeing that stimulation of the vagus has a nutritive effect on the heart).

DR. MULLIN, of Hamilton, opened a

DISCUSSION ON MALARIA AS A CAUSE OF DISEASE.

He pointed out the frequency with which symptoms were ascribed to hidden malarial poison, which were really due to some other cause not patent to the eyes of the careless or unmethodical observer. We do not know what malaria is, and should, therefore, not be in haste to ascribe all variety of symptoms to it. A diagnosis of malaria is often disproved by the intractability of the disease to even enormous doses of quinine. Dr. Holmes, of Chatham, coming from a malarious district had met with malaria under many forms and displaying a great variety of symptoms, singly and grouped. He had again and again proved his diagnosis by the magic influence of a few doses of quinine.

(To be concluded.)

CORRESPONDENCE.

A CORRECTION.

To the Editor of THE MEDICAL NEWS,

SIR: In an editorial published in your journal of June 16th, on page 672, you say that but three colleges east of the Ohio River require a three years' course previous to graduation; viz., Harvard, the University of Pennsylvania, and now Jefferson Medical College. This is a mistake. I think there are at least three others, but I am sure that there is one other—the Medical Department of Niagara University, located in the city of Buffalo. The Medical Department was organized in 1883, and by request of the faculty the State Legislature made a three years' course necessary. The college was established in the interest of higher medical education, and it maintains that position now. A three years' course is obligatory, and a four years' course is recommended.

Respectfully yours,

HENRY D. INGRAHAM,
Prof. of Gynecology and Pediatrics,
Niagara University.

BUFFALO, N. Y., June 20, 1888

THE FIRE AT THE UNIVERSITY OF PENNSYLVANIA.

To the Editor of THE MEDICAL NEWS,

SIR: Will you have the kindness to publish the following resolution, passed at a special meeting of the Medical Faculty, June 1st:

Resolved, That the thanks of the Faculty be extended to the Resident Physicians of the Philadelphia and University Hospitals, to the students of medicine and others who aided so energetically in saving preparations, books and apparatus from the recent fire in Medical Hall.

Respectfully yours,

JAMES TYSON,
Secretary

NEWS ITEMS.

Changes at the Harvard Medical School.—Dr. F. C. Shattuck has been appointed Professor of Clinical Medicine; Dr. J. Orme Green, Clinical Professor of Otology; Dr. Clarence J. Blake, Professor of Otology; Dr. F. I. Knight, Clinical Professor of Laryngology, and Dr. W. H. Baker, Professor of Gynecology.

Dr. E. N. Whittier has resigned the position of Assistant Professor of Clinical Medicine.

The Building Fund of the New York Academy of Medicine, in response to the appeal for subscriptions, has received nearly twelve thousand dollars.

A Successful Operation for Pyloric Stenosis.—Loretta's operation, or the digital division of the pylorus for stenosis, with dilatation of the stomach, was performed, June 11th, by Dr. William T. Bull at St. Luke's Hospital. The patient, a man aged thirty-seven, had suffered for twenty months from daily vomiting, pain, acid eructations and heartburn, and was much reduced in flesh, despite treatment by lavage of the stomach, careful diet and internal remedies. He was made the subject of thorough investigation by testing chemically the

fluids of the stomach, by Dr. F. P. Kinnicutt, and the diagnosis of stenosis from cicatricial contraction of an ulcer arrived at. The operation confirmed the diagnosis, the pyloric orifice being found so small as to admit only a bougie of a diameter of three-sixteenths of an inch. Through a wound two inches long near the pylorus the orifice was stretched gradually with bougies and the fingers till it was over two inches in diameter. No accident followed the operation, and the patient may be now (June 19th) considered out of danger. There has been neither pain nor vomiting, though for several days considerable quantities of liquid diet have been taken by the mouth. A full report of the case will be presented at the October meeting of the Practitioners' Society. This is the first successful case of this operation yet reported in this country.—*The Medical Record*, June 23, 1888.

A Generous Endowment.—Joseph Hyrtl, the eminent anatomist, has offered to endow six scholarships, in the Vienna Medical School, for worthy students without means, without distinction of nationality or creed.

Prof. v. Bergmann has been elected an honorary member of the St. Petersburg Chirurgical Society.

Adulteration in Europe.—The sanitary authorities in Roumania, in their report for 1887, mention the discovery and seizure of macaroni colored with naphtalin yellow, picric acid and binitro-cressol, and confectionery colored with auramin, anilin yellow, fuchsin, mononaphtol and dinitro-naphtol. Considerable vinegar essence, intended for the manufacture of vinegar, was seized on importation because it contained picric acid. Analyses were made of distilled spirits, and resulted in finding brandy made from unrectified ethylic alcohol, and colored with picric acid, benzoyl, heleanthin (methylorange) and chrysanilin. Some of it was flavored with ethylic ether, acetic ether, amyl nitrite and prussic acid. The wines sold in inns were nearly all alcoholized and flavored with amylic ether.

In Poland, wheat flour is largely adulterated by the addition, to make weight, of valueless ground vegetable matter, as well as the admixture of from ten to fifty per cent. of barley and rye flour. The result of these vegetable admixtures has been frequent cases of poisoning, including several cases of ergotism.

In Norway, where no anti-adulteration laws exist, the simply honesty of the people has, so far, precluded much adulteration, although milk and butter have not escaped deterioration by adulteration. The medical authorities have, however, found considerable illness caused from the use of arsenical colors in the dyeing and printing of carpets, curtains, furniture coverings and wall paper, especially that imported from England.

In Germany, Dr. Schweissinger found cod-liver oil made of resin and mineral oils, and olive oil entirely made of rape-seed oil.

In Holland, Dr. Van Hamel Roos found 705 milligrammes (11 grains) of common salt in a litre (a quart) of wine imported from the south of France.

In Belgium, an advertisement in the public journals, emanating from Saintes, in France, offers a bottle of wine essence for a little less than a dollar, which essence is guaranteed, by the addition of water, to make 230

litres (61 gallons) of wine. Dr. H. Thorns seized a quantity of milk adulterated with ultramarine.

In Austria, saffron was found to be heavily adulterated with sulphate of baryta, colored with eosine.

In England, a so-called Coleman's-Liebig's extract of meat and malt wine, said to be composed of port wine and Liebig's extract of meat, was found to be nothing but port wine having a considerable addition of salicylic acid.

From Germany comes a circular offering a champagne at 15.60 francs (\$3.12) per dozen bottles, including cases, packing and freight to Antwerp or Rotterdam, and adding that any kind of label desired will be furnished.

In Goirle (Brabant), a shoemaker died in consequence of having inoculated a wound by handling leather made from hides imported from Buenos Ayres, which had been treated with poisonous preservatives.—*American Analyst*, June 15, 1888.

Cremation of Garbage.—Milwaukee disposes of its garbage effectually by cremation. The cost of this method is not excessive. To consume forty tons of garbage, about five tons of fuel are required. Even in winter the furnace is in operation only from eight to ten hours daily, and the cost of incinerating the garbage is only about eighty-six cents per ton. Detroit is about to adopt the same system.—*Pharmaceutical Era*, June, 1888.

A New Antiseptic Soap.—At a recent meeting of the Society of Chemical Industry, held at Edinburgh, Mr. John Thomson reported the results of his experiments on the preparation of an antiseptic soap.

The mercuric salts being so powerfully antiseptic, the author experimented with a number of them, but found only one of them to resist decomposition when introduced into soap. This salt was the red iodide (biniodide), which has long been known to be more powerfully antiseptic than even the bichloride. Biniodide of mercury combines with soap of almost any kind without in any degree losing its antiseptic properties. A variety of soaps prepared by the author, and containing mercuric iodide, were tested by several bacteriologists, and were found to be most efficient. The tests were made by introducing silk-threads impregnated with various septic materials (of known origin) into a solution of the soap of a known strength (usually 1 in 120), and leaving them there 10 minutes, which time was sufficient to render them perfectly aseptic.

The biniodide soap has been tried in the treatment of cases of eczema with most marked success, especially where the irritation has been produced by the fermentation of accumulated secretions.

It has also been used in parasitic skin diseases, such as favus and ringworm, with marked success.

The biniodide soap contains from one to three per cent. of biniodide dissolved in iodide of potassium.—*American Druggist*, June, 1888.

NOTES AND QUERIES.

THE DEMAND FOR IMPROVED MEDICAL EDUCATION.

To the Editor of THE MEDICAL NEWS,

SIR: A word of encouragement, though a *mite*, may not fall unheeded. I am proud to see the journal of my choice for twenty-

three consecutive years taking the lead in "An Advance in Medical Education." I believe the profession at large will indorse the *three-year course*. The subject was discussed at the recent meeting of the Indiana State Medical Society, and while no definite action was taken, yet all seemed to agree that a higher standard is imperatively demanded.

Respectfully, S. E. HAMPTON, M.D.

MILTON, KY., June 20, 1888.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF THE MEDICAL CORPS OF THE U. S. NAVY, FOR THE WEEK ENDING JUNE 23, 1888.

CRANDALL, R. P., *Assistant Surgeon*.—Detached from the "Minnesota," and ordered to the "Saratoga."

SHIPPEN, EDWARD, *Medical Director*.—Placed on the retired list, June 18, 1888.

SAYRE, J. S., *Assistant Surgeon*.—Ordered to the Navy Yard, New York.

BRADLEY, MICHAEL, *Medical Inspector*.—Ordered to examination for promotion.

KERSHNER, EDWARD, *Surgeon*.—Ordered to the Marine Rendezvous, New York.

WHITE, C. H., *Surgeon*.—Detached from the Museum of Hygiene and await orders.

TRYON, J. RUFUS, *Surgeon*.—Detached from the Marine Rendezvous, New York, and ordered to special duty at New York.

MCCARTY, RUFUS, *Passed Assistant Surgeon*.—Detached from the Naval Hospital, Chelsea, Mass., and ordered to the "Yantic."

HENNEBERGER, L. G., *Passed Assistant Surgeon*.—Detached from special duty, New York, and ordered to the "Minnesota."

KITE, J. W., *Assistant Surgeon*.—Detached from the "Yantic," and ordered to the "Richmond."

Surgeons WOOLVERTON, WHITE, WOODS and DUBOIS ordered for examination, preliminary to promotion to the grade of Medical Inspector.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JUNE 19 TO JUNE 25, 1888.

MCPARLIN, T. A., *Colonel and Surgeon* (U. S. Army).—Granted leave of absence for one month, with permission to apply for an extension of one month.—*S. O. 52, Department of the Platte*, June 20, 1888.

BROWN, J. M., *Major and Surgeon*.—Will take charge of the office and duties of the Medical Director, Department of the Platte, during the temporary absence of Colonel McParlin.—*S. O. 52, Department of the Platte*, June 20, 1888.

WHITE, ROBERT H., *Major and Surgeon*.—Ordered from Angel Island, California, to Fort Myers, Virginia.—*S. O. 142, A. G. O.*, June 20, 1888.

MUNN, CURTIS E., *Captain and Assistant Surgeon*.—Ordered from Fort Klamath, Oregon, to Angel Island, California.—*S. O. 142, A. G. O.*, June 20, 1888.

TORNEY, GEORGE H., *Captain and Assistant Surgeon*.—Relieved from duty at Fort Monroe, Va., and ordered to Fort Randall, Dakota Territory.—*S. O. 142, A. G. O.*, June 20, 1888.

MCCREERY, GEORGE, *Captain and Assistant Surgeon*.—Relieved from duty at Fort Meade, Dakota Territory, and ordered to Fort Monroe, Va., for duty.—*S. O. 142, A. G. O.*, June 20, 1888.

GORGAS, WILLIAM C., *Captain and Assistant Surgeon*.—Relieved from duty at Fort Randall, Dakota Territory, and ordered to Fort Barrancas, Florida.—*S. O. 142, A. G. O.*, June 20, 1888.

MORRIS, EDWARD R., *First Lieutenant and Assistant Surgeon*.—Leave of absence granted in *S. O. 61*, May 28, 1888, Department of Arizona, extended one month.—*S. O. 142, A. G. O.*, June 20, 1888.

POINDEXTER, J. D., *First Lieutenant and Assistant Surgeon*.—Granted leave of absence for one month.—*S. O. 55, Department of Dakota*, June 18, 1888.

SWIFT, EUGENE L., *First Lieutenant and Assistant Surgeon*.—Ordered from Fort Spokane, Washington Territory, to Fort Klamath, Oregon, for temporary duty.—*S. O. 142, A. G. O.*, June 20, 1888.

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